

Appl. No. 09/814,406
Amdt. Dated June 14, 2005
Reply to Office action of March 16, 2005
Attorney Docket No. P13986-2/34645-00522USPT
EUS/J/P/05-6095

Amendments to the Claims:

This listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A communication entity comprising:
a combined static/dynamic dictionary containing text of at least one field name associated with a communication protocol including at least one of a Session Initiation Protocol (SIP) and a Session Description Protocol (SDP); and
a compressor in communication with said combined static/dynamic dictionary, said compressor using said combined static/dynamic dictionary to compress a data packet associated with at least one of a SIP message and a SDP message by replacing at least one field name therein that matches the text of the at least one field name stored within said dictionary with a pointer to a location in said combined static/dynamic dictionary that contains the matched text;
said combined static/dynamic dictionary includes a static dictionary which has text stored therein that was added before commencement of communications with a remote communication entity, wherein said text stored therein was selected based upon statistical data flows of said communication protocol; and
said combined static/dynamic dictionary further includes a dynamic dictionary which has text stored therein that was added after commencement of the communications with the remote communication entity.
2. (Currently Amended) The communication entity of claim 1, said communication entity further comprising:
a decompressor in communication with said combined static/dynamic dictionary, said decompressor using said combined static/dynamic dictionary to decompress a compressed data packet received from the a remote communication entity.

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3. (Previously Presented) The communication entity of claim 1, wherein said communication entity also uses another compression scheme to further compress the compressed data packet.

4-9. (Cancelled)

10. (Previously Presented) The communication entity of claim 3, wherein said another compression scheme is a sliding window compression method.

11. (Currently Amended) A communication entity comprising:

a combined static/dynamic dictionary containing text of at least one field name associated with a communication protocol including at least one of a Session Initiation Protocol (SIP) and a Session Description Protocol (SDP); and

a decompressor in communication with said combined static/dynamic dictionary, said decompressor using said combined static/dynamic dictionary to decompress a data packet associated with at least one of a SIP message and a SDP message by using at least one pointer in the data packet to locate text associated with the at least one field name stored in the combined static/dynamic dictionary and then replacing the at least one pointer with the text associated with the at least one field name within the data packet;

said combined static/dynamic dictionary includes a static dictionary which has text stored therein that was added before commencement of communications with a remote communication entity, wherein said text stored therein was selected based upon statistical data flows of said communication protocol; and

said combined static/dynamic dictionary further includes a dynamic dictionary which has text stored therein that was added after commencement of the communications with the remote communication entity.

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12. (Currently Amended) The communication entity of claim 11, said communication entity further comprising:

a compressor in communication with said combined static/dynamic dictionary, said compressor using said combined static/dynamic dictionary to compress a data packet to be sent to the a remote communication entity.

13. (Previously Presented) The communication entity of claim 11, wherein said communication entity also uses another decompression scheme to further decompress the data packet.

14-19. (Cancelled)

20. (Previously Presented) The communication entity of claim 13, wherein said another decompression scheme is a sliding window decompression method.

21. (Currently Amended) A communication system for facilitating compressed message communication, said communication system comprising:

a first communication entity comprising:

a first combined static/dynamic dictionary containing text of at least one field name associated with a communication protocol including at least one of a Session Initiation Protocol (SIP) and a Session Description Protocol (SDP); and

a compressor in communication with said first combined static/dynamic dictionary, said compressor using said first combined static/dynamic dictionary to compress a data packet associated with at least one of a SIP message and a SDP message by replacing at least one field name therein that matches the text of the at least one field name stored within said first combined static/dynamic dictionary with a pointer to a location in said first combined static/dynamic dictionary that contains the matched text; and

said first combined static/dynamic dictionary includes a static dictionary which has text stored therein that was added before commencement of communications with a

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second communication entity, wherein said text stored therein was selected based upon statistical data flows of said communication protocol; and

said first combined static/dynamic dictionary further includes a dynamic dictionary which has text stored therein that was added after commencement of the communications with the second communication entity; and

said ~~and~~ a second communication entity comprising:

a second combined static/dynamic dictionary containing text of at least one field ~~filed~~ name associated with the communication protocol including at least one of the Session Initiation Protocol (SIP) and the Session Description Protocol (SDP); ~~and~~

a decompressor in communication with said second combined static/dynamic dictionary, said decompressor using said second combined static/dynamic dictionary to decompress a compressed data packet received from said first communication entity by using at least one pointer in the compressed data packet to locate text associated with the at least one field name stored in the second combined static/dynamic dictionary and then replacing the at least one pointer with the text associated with the at least one field name within the compressed data packet, wherein said first combined static/dynamic dictionary being substantially equivalent to said second combined static/dynamic dictionary;

said second combined static/dynamic dictionary includes a static dictionary which has text stored therein that was added before commencement of communications with the first communication entity, wherein said text stored therein was selected based upon statistical data flows of said communication protocol; and

said second combined static/dynamic dictionary further includes a dynamic dictionary which has text stored therein that was added after commencement of the communications with the first communication entity;

22-35. (Cancelled)

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36. (Currently Amended) A method of facilitating compressed message communication using a communication protocol including at least one of a Session Initiation Protocol (SIP) and a Session Description Protocol (SDP), said method comprising the steps of:

searching a combined static/dynamic dictionary for text of a field name that matches text of a field name within at least one of a SIP communication message and a SDP communication message, wherein:

said combined static/dynamic dictionary includes a static dictionary which has text stored therein that was added before commencement of communications with a remote communication entity, wherein said text stored therein was selected based upon statistical data flows of said communication protocol; and

said combined static/dynamic dictionary further includes a dynamic dictionary which has text stored therein that was added after commencement of the communications with the remote communication entity;

upon affirmative confirmation that said combined static/dynamic dictionary contained said matched text of the field name, retrieving from said combined static/dynamic dictionary a pointer associated with a location in said combined static/dynamic dictionary that stores the matched text of the field name;

replacing, in said communication message, said text of the field name with said pointer; and

adding to said combined static/dynamic dictionary all or a selected portion of the text of the field name in the communication message that was not matched to the text stored in said combined static/dynamic dictionary during said searching step; and

transmitting said compressed communication message using said communication protocol.

37-38. (Cancelled)

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39. (Currently Amended) A method of facilitating compressed message communication using a communication protocol including at least one of a Session Initiation Protocol (SIP) and a Session Description Protocol (SDP), said method comprising the steps of:

receiving a SIP or a SDP communication message based upon said communication protocol, said communication message including a pointer;
retrieving from a combined static/dynamic dictionary, text of a field name which is stored within said combined static/dynamic dictionary at a location identified by said pointer, wherein:

said combined static/dynamic dictionary includes a static dictionary which has text stored therein that was added before commencement of communications with a remote communication entity, wherein said text stored therein was selected based upon statistical data flows of said communication protocol; and

said combined static/dynamic dictionary further includes a dynamic dictionary which has text stored therein that was added after commencement of the communications with the remote communication entity; and

replacing, in said communication message, said pointer with the text of the field name; and

adding to said combined static/dynamic dictionary all or a selected portion of the text of the field name that was not represented by the pointer in the communication message.

40-41. (Cancelled)